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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/529,873	07/27/2000	ANDREW BRUCE HOLMES	C1043/7023	3741

22852 7590 03/05/2002

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EXAMINER

TRUONG, DUC

ART UNIT	PAPER NUMBER
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1711

14

DATE MAILED: 03/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

T.D-14

# Office Action Summary

Application No.  
09/529,873

Applicant(s)  
Holmes et al.

Examiner  
Duc Truong

Art Unit  
1711



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Feb 8, 2002
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9, 11-24, 30, and 31 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 11, 12, 14-24, 30, and 31 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_

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Applicant's arguments filed 2/8/02 have been fully considered but they are not persuasive. The Amendment submitted by Applicant does not overcome the rejection made by Examiner in the last Office action.

Claims 1-7, 9, 11-12, 14-24 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antoniadis or Wan or Hsieh.

The rejection is maintained for the reasons as stated in the last Office action and for the following reasons:

Applicant's arguments are based on the claimed characteristic in that the product must be soluble.

Note that said characteristic is a preamble and does not have a patentable weight.

The requirements for claim 1 is a conjugated poly(1,4-arylene vinylene) compound comprising a 1,4-phenylene vinylene unit having adjacent substituents.

The requirements for the claimed method 14 is polymerizing a bis(halomethyl) substituted phenyl monomer in the presence of a base to form a poly(arylene vinylene) wherein the phenyl monomer has adjacent substituents on the phenyl residue.

Note that the references do disclose said requirements:

Antoniadis discloses that the chloride polymer of DP-PPV was prepared from the polymerization of 1,4-bis(chloromethyl)-2,3-diphenyl benzene in the presence of t-BuOK (a base) (see Synthesis of DP-PPV and Figure 1).

Wan discloses thin films of DP-PPV prepared via a chlorine route involving the polymerization of 1,4-bis(chloromethyl)-2,3-diphenyl benzene (See Abstract, Table 1) using a t-butoxide.

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Hsieh does disclose a halogen route using 1,4-bis(chloromethyl)-2,3-diphenyl benzene in the presence of t-butoxide to form poly(2,3-diphenyl-p-phenylene vinylene).

Since the references do disclose all the claimed requirements, then the 'claimed soluble characteristic" must be considered inherent form the prior art.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Any inquiry concerning this communication should be directed to Duc Truong at  
telephone number (703) 308-2437.

Duc Truong

February 28, 2002

A handwritten signature in black ink, appearing to read 'Duc Truong', with a stylized flourish at the end.

DUCTRUONG  
PRIMARY EXAMINER